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MOORE & VAN ALLEN PLLC
P.O. BOX 13706
Research Triangle Park, NC 27709

EXAMINER	
HUANG, WEN WU	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/709,345	VANCE, SCOTT LADELL	
	Examiner	Art Unit	
	WEN W. HUANG	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5,9-14,22,26-31,33,35-37 and 41-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,9-14,22,26-31,33,35-37 and 41-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 2, 3, 6-8, 15-21, 23, 25, 32, 34, 38-40 and 46-48 are canceled.

Claims 1, 4, 5, 9-14, 22, 26-31, 33, 35-37 and 41-45 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1, 12-14, 22, 26, 31, 33, 36, 37 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes (US. 3,586,798; hereinafter "Holmes") in view of Grados (US Pub No. 2004/0243416 A1; hereinafter "Grados")

Regarding **claim 1**, Holmes teaches a device for hands-free push-to-talk functionality (see Holmes, col. 1, lines 25-40 and 61-68; hands-free device), comprising:

a hands-free push-to-talk sensor or switch (see Holmes, col. 2, lines 29-35, fig. 2, switch 20) including a tilt sensor for sensing a tilting of the user's head (see Holmes, col. 1, lines 35-36 and fig. 2, col. 2, lines 70-73), wherein the hands-free push- to-talk sensor or switch is operable by the tilt sensor sensing a tilting of the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73); and

means to control operation of a communication device in response to signals from the push-to-talk sensor or switch (see Holmes, col. 3, lines 1-6),

wherein the push-to-talk sensor or switch comprises the tilt sensor (see Holmes, col. 1, lines 35-36 and fig. 2, col. 2, lines 70-73),

wherein a transmit mode of the communications device (see Holmes, col. 1, lines 24-31, transmit mode of the push-to-talk) is activated in response to the tilt sensor being activated (see Holmes, col. 2, lines 67-75).

Holmes is silent to teaching that wherein

the tilt sensor for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle, and

the tilt senor being activated by being tilted more than the predetermined angle from the zero or normalized angle of the direction of force due to gravity for a predetermined time duration. However, the claimed limitation is well known in the art as evidenced by Grados.

In the same field of endeavor (hands-free telephony device art), Grados teaches a hands-free telephony device (see Grados, para. [0012], fig. 1, headset 100 and the user's head 104) comprising

a tilt sensor (see Grados, fig. 2, sensor 112, para. [0015]) for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle (see Grados, para. [0017] and [0048]), and

the tilt senor being activated by being tilted more than the predetermined angle from the zero or normalized angle of the direction of force due to gravity for a predetermined time duration (see Grados, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes with the teaching of Grados in order to provide a hands-free headset with improved sensor for sensing the user's head movement and retain full use of both of the user's hands (see Holmes, col. 1, lines 39-42 and Grados, para. [0012]).

Thus, one of ordinary skill in the art at the time of the invention was made would have replaced the tilt sensor of Holmes with the tilt sensor of Grados for the push-to-talk device of Holmes to improve the effectiveness of human-to-human spoken communication (see Grados, para. [0012]).

Furthermore, Grados teaches using the user's head action (i.e. tilting) parameters for a variety of control operations (see Grados, para. [0043-0048]) and Holmes teaches using the user's head action (i.e. tilting) for controlling a radio push-to-talk device (see Holmes, col. 1, lines 25-40 and 61-68; hands-free device; fig. 2, col. 2, lines 70-73). Thus, the Examiner submits that the combination of Holmes and Grados is proper.

Regarding **claim 12**, the combination of Holmes and Grados also teaches the device of claim 1, wherein the communications device is a wireless communications device (see Holmes, col. 1, lines 10-11).

Regarding **claim 13**, the combination of Holmes and Grados also teaches the device of claim 1, wherein the communications device is one of a radio (see Holmes, col. 1, lines 10-11) a cellular phone, a cordless phone, a personal digital assistant and a computer.

Regarding **claim 14**, the combination of Holmes and Grados also teaches the device of claim 1, further comprising a headset (see Grados, fig. 1, headset 100), wherein the push-to-talk sensor or switch is mounted to the headset (see Grados, fig. 2, sensor 112).

Regarding **claim 22**, Holmes teaches a method for hands-free push-to-talk functionality (see Holmes, col. 1, lines 25-40), comprising:

detecting (see Holmes, col. 2, lines 29-35, fig. 2, switch 20) a tilt angle caused by the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73); and

controlling operation of a communications device in response to detecting a presence or absence of the tilt angle caused by the user's head (see Holmes, col. 3, lines 1-6).

Holmes is silent to teaching that wherein

the tilt angle caused by a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration. However, the claimed limitation is well known in the art as evidenced by Grados.

In the same field of endeavor (hands-free telephony device art), Grados teaches a method for hands-free telephony device (see Grados, para. [0012], fig. 1, headset 100 and the user's head 104),

wherein a tilt angle (see Grados, fig. 2, sensor 112, para. [0015]) caused by a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration (see Grados, para. [0017 and 0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes with the teaching of Grados in order to provide a hands-free headset with improved sensor for sensing the user's head movement and retain full use of both of the user's hands (see Holmes, col. 1, lines 39-42 and Grados, para. [0012]), and for the reasons stated above in claim 1.

Regarding **claims 26**, the combination of Holmes and Grados also teaches the device of claim 22, further comprising activating a transmit mode (see Holmes, col. 1, lines 24-31, transmit mode of the push-to-talk) in the communication device in response to detecting the tilt sensor (see Holmes, col. 2, lines 67-75) being tilted more than the

predetermined angle from the normalized angle for the predetermined time duration (see Grados, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Regarding **claim 31**, Holmes teaches a method for making a device for hands-free push-to-talk functionality (see Holmes, col. 1, lines 25-40), comprising:

providing a hands-free push-to-talk sensor or switch (see Holmes, col. 2, lines 29-35, fig. 2, switch 20) including of a tilt sensor for sensing tilting of the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73),

wherein the hands-free push-to-talk sensor or switch is operable by the tilt sensor sensing tilting of the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73); and

providing means to control operation of a communication device in response to signals from the push-to-talk sensor or switch (see Holmes, col. 3, lines 1-6).

Holmes is silent to teaching that wherein

the tilt sensor for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration. However, the claimed limitation is well known in the art as evidenced by Grados.

In the same field of endeavor (hands-free telephony device art), Grados teaches a method for hands-free telephony device (see Grados, para. [0012], fig. 1, headset 100 and the user's head 104) comprising

providing a tilt sensor (see Grados, fig. 2, sensor 112, para. [0015 and 0017]) for sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration (see Grados, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes with the teaching of Grados in order to provide a hands-free headset with improved sensor for sensing the user's head movement and retain full use of both of the user's hands (see Holmes, col. 1, lines 39-42 and Grados, para. [0012]), and for the reasons stated above in claim 1.

Regarding **claims 33**, the combination of Holmes and Grados also teaches the method of claim 31, wherein providing the push-to-talk sensor or switch comprises:

providing the tilt sensor (see Grados, fig. 1, sensor 112); and

adapting the tilt sensor to cause activation of a transmit mode (see Holmes, col. 1, lines 24-31, transmit mode of the push-to-talk) in the communications device in response to the tile sensor (see Holmes, col. 2, lines 67-75) being tilted more than a predetermined angle from a normalized angle of the direction of force due to gravity for the predetermined time duration (see Grados, para. [0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Regarding **claim 36**, the combination of Holmes and Grados also teaches the method of claim 31, further comprising:

providing a headset (see Grados, fig. 1, headset 100); and

mounting the push-to-talk sensor or switch in the headset (see Grados, fig. 2, sensor 112).

Regarding **claim 37**, Holmes teaches a computer-readable medium having computer-executable instructions for performing a method, comprising:

detecting (see Holmes, col. 2, lines 29-35, fig. 2, switch 20) a tilt angle caused by the user's head (see Holmes, co1.1, lines 35-36 and fig. 2, col. 2, lines 70-73); and

controlling operation of a communications device in response to detecting a presence or absence of the tilt angle caused by the user's head (see Holmes, col. 3, lines 1-6).

Holmes is silent to teaching that wherein

the tilt angle caused by a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration. However, the claimed limitation is well known in the art as evidenced by Grados.

In the same field of endeavor (hands-free telephony device art), Grados teaches a method for hands-free telephony device (see Grados, para. [0012], fig. 1, headset 100 and the user's head 104),

wherein a tilt angle (see Grados, fig. 2, sensor 112, para. [0015]) caused by a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle for a predetermined time duration (see Grados, para. [0017 and 0025], head action parameters including time and degree of the head movement; also see para. [0048]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes with the teaching of Grados in order to provide a hands-free headset with improved sensor for sensing the user's head movement and retain full use of both of the user's hands (see Holmes, col. 1, lines 39-42 and Grados, para. [0012]), and for the reasons stated above in claim 1.

Regarding **claim 41**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claim 26.

2. Claims 4, 5, 27 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes and Grados as applied to claims 1, 22 and 37 above, and further in view of Lenz (US. 5,101,504; hereinafter "Lenz").

Regarding **claims 4**, the combination of Holmes and Grados teaches the device of claim 1.

The combination of Holmes and Grados is silent to teaching that further comprising means for maintaining the communications device in the transmit mode in

response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay. However, the claimed limitation is well known in the art as evidenced by Lenz.

In the same field of endeavor, Lenz teaches a device for hands-free push-to-talk functionality comprising means for maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-35) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Grados with the teaching of Lenz in order to improve a hands-free push-to-talk device to indicate to the user the operation mode of the communication device (see Lenz, col. 3, lines 40-48).

Regarding **claims 5**, the combination of Holmes and Grados teaches the device of claim 1.

The combination of Holmes and Grados is silent to teaching that further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay. However, the claimed limitation is well known in the art as evidenced by Lenz.

In the same field of endeavor, Lenz teaches a device for hands-free push-to-talk functionality comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-33) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Grados with the teaching of Lenz in order to improve a hands-free push-to-talk device to indicate to the user the operation mode of the communication device (see Lenz, col. 3, lines 40-48).

Regarding **claim 27**, the combination of Holmes and Grados teaches the device of claim 22.

The combination of Holmes and Grados is silent to teaching that further comprising:

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay; and

switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle after a selected time delay. However, the claimed limitation is well known in the art as evidenced by Lenz.

In the same field of endeavor, Lenz teaches a method for hands-free push-to-talk functionality comprising

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-35) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected time delay); and

switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the tilt sensor being tilted more than the predetermined angle (see Lenz, col. 3, lines 31-33) after a selected time delay (see Lenz, col. 3, lines 40-43; the "click" noise presents a selected • time delay).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Grados with the teaching of Lenz in order to improve a hands-free push-to-talk device to indicate to the user the operation mode of the communication device (see Lenz, col. 3, lines 40-48).

Regarding **claim 42**, the dependent claim is interpreted and rejected for the same reasons as set forth above in claim 27, respectively.

3. Claims 9-11, 28-30, 35 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lenz as applied to claims 1, 22, 31 and 37, respectively above, and

further in view of Brening (US. 4,426,733; hereinafter "Brening") and White (US. 6,594,632 B1; hereinafter "White").

Regarding **claim 9**, the combination of Holmes and Grados teaches the device of claim 1.

The combination of Holmes and Grados is silent to teaching that wherein the push-to-talk sensor or switch comprises the air pressure sensitive switch, wherein a transmit mode of the communications device is activated in response to the user blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure. However, the claimed limitation is well known in the art as evidenced by Brening and White.

In the same field of endeavor, Brening teaches a push-to-talk sensor or switch comprises the air pressure sensitive switch (see Brening, col. 2, lines 18-19; microphone), wherein a transmit mode of the communications device is activated in response to the air pressure sensitive switch (see Brening, col. 2, line 16; "transmit"; and col. 4, line 31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Grados with the teaching of Brening in order to provide improved hands-free operation and provide voice operation for the PTT headset (see Brening, col. 3, lines 21-26).

The combination of Holmes, Grados and Brening is silent to teaching that a transmit mode of the communications device is activated in response to the user

blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure. However, the claimed limitation is well known in the art as evidenced by White.

In the same field of endeavor, White teaches a hands-free push-to-talk communication device (see White, col. 4, lines 5-13) comprising a push-to-talk sensor or switch comprises the air pressure sensitive switch (see White, fig. 2a, microphone 261 and pressure sensor 263, col. 5, lines 1-4), wherein a transmit mode of the communications device is activated in response to the user blowing on the air pressure sensitive switch with an air pressure greater than a preset air pressure (see White, col. 3, lines 20-27 and col. 5, lines 8-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes, Grados and Brening with the teaching of White in order to allow activating the communication device in a hands-free manner (see White, col. 2, lines 64-67).

Regarding **claim 10**, the combination of Holmes, Grados, Brening and White also teaches the device of claim 9, further comprising means for maintaining the communications device in a transmit mode in response to at least one of detecting a voice signal or the air pressure greater than the preset air pressure (see Brening, col. 2, line 16; "transmit"; and col. 4, line 31) caused by the user blowing on the air pressure sensitive switch (see White, col. 3, lines 20-27 and col. 5, lines 8-9) after a selected time delay (see Brening, col. 5, lines 64-65).

Regarding **claim 11**, the combination of Holmes, Grados, Brening and White also teaches the device of claim 9, further comprising means for switching the communications device to one of a receive mode or standby mode in response to an absence of at least one of detecting a voice signal or the air pressure greater than the preset air pressure after a selected time delay (see Brening, col. 5, lines 39-49; fig. 5; after 35 seconds, step 57 and step 65, without any audible command, the processor returns to standby mode 51).

Regarding **claim 28**, the combination of Holmes and Grados teaches the method of claim 22.

The combination of Holmes and Grados is silent to teaching that further comprising detecting an air pressure greater than a preset air pressure being blown on an air pressure sensitive switch by the user. However, the claimed limitation is well known in the art as evidenced by Brening and White.

In the same field of endeavor, Brening teaches a method for push-to-talk sensor or switch comprising detecting an air pressure (see Brening, col. 2, lines 18-19; microphone).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes and Grados with the teaching of Brening in order to provide improved hands-free operation and provide voice operation for the PTT headset (see Brening, col. 3, lines 21-26).

The combination of Holmes, Grados and Brening is silent to teaching that wherein detecting an air pressure greater than a preset air pressure being blown on an air pressure sensitive switch by the user. However, the claimed limitation is well known in the art as evidenced by White.

In the same field of endeavor, White teaches method for a hands-free push-to-talk communication device (see White, col. 4, lines 5-13) wherein detecting an air pressure greater than a preset air pressure being blown on an air pressure sensitive switch by the user (see White, fig. 2a, microphone 261 and pressure sensor 263, col. 5, lines 1-4; and col. 3, lines 20-27 and col. 5, lines 8-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the teaching of Holmes, Grados and Brening with the teaching of White in order to allow activating the communication device in a hands-free manner (see White, col. 2, lines 64-67).

Regarding **claim 29**, the combination of Holmes, Grados, Brening and White also teaches the method of claim 28, further comprising activating a transmit mode in the communications device in response to detecting the air pressure greater than the preset air pressure (see Brening, col. 2, line 16; "transmit"; and col. 4, line 31) being blown on the air pressure sensitive switch by the user (see White, col. 5, lines 1-9).

Regarding **claim 30**, the combination of Holmes, Grados, Brening and White also teaches the method of claim 29, further comprising:

maintaining the communications device in the transmit mode in response to at least one of detecting a voice signal or the air pressure greater than the preset air pressure (see Brening, col. 2, line 16; "transmit"; and col. 4, line 31) after a selected time delay (see Brening, col. 5, lines 64-65); and

switching or maintaining the communications device in one of a receive or standby mode in response to an absence of at least one of a voice signal or the air pressure greater than the preset air pressure (see Brening, col. 2, line 16; "receive"; and col. 4, line 31) after the selected time delay (see Brening, col. 5, lines 64-65).

Regarding **claim 35**, the dependent claim is interpreted and rejected for the same reasons as set forth above in claim 9.

Regarding **claims 43-45**, the dependent claims are interpreted and rejected for the same reasons as set forth above in claims 28-30, respectively.

Response to Arguments

Applicant's arguments filed 4/18/08 have been fully considered but they are not persuasive.

Combination of Holmes and Grados

In response to applicant's argument that the combination of Holmes and Grados is inoperable because of placing Grados' motion sensor on Holmes' user's chest, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Furthermore, the Examiner submits that one of ordinary skill in the art at the time of the invention was made having the knowledge of Holmes and Grados would not place the motion sensor of Grados at the chest of the user of Holmes. The Examiner submits that BOTH sensors of Holmes and Grados are intended to **sense the head motion of the user.** Placing the motion sensor of Grados on the chest of the user of Holmes is nonsensical and unreasonable.

In response to applicant's argument that Grados is related to speech recognition which is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Examiner submits that both Holmes and Grados are related to hands-free communication device operated by the user's head motion.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references (i.e. Holmes' lacking of teaching of "sensing a change in a direction of force due to gravity on the tilt sensor when the tilt sensor is tilted more than a predetermined angled from a zero or normalized angle"). See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The Examiner submits that Grados teaches using the user's head action (i.e. tilting) parameters for a variety of control operations (see Grados, para. [0043-0048]) and Holmes teaches using the user's head action (i.e. tilting) for controlling a radio push-to-talk device (see Holmes, col. 1, lines 25-40 and 61-68; hands-free device; fig. 2, col. 2, lines 70-73). Thus, the Examiner submits that one of ordinary skill in the art at the time of the invention was made would have improve the tilt sensor of Holmes with the tilt sensor of Grados for the push-to-talk device of Holmes to improve the effectiveness of hands-free control of the communication device (see Grados, para. [0012]).

A selected time delay

Applicant argues the Lenz does not teach or suggest maintaining the transmit mode in response the sensor being activated after a selected time delay. However, the Examiner respectfully disagrees.

Mores specifically, Lenz teaches (see Lenz, col. 3, lines 31-43) that:

"In the most common two-way radios where the switch must be depressed as long as the person is talking and transmitting, the wearer can comfortably keep his shoulder raised for an extended period such as a minute while talking, all without affecting use of his hands and head ....

In order to indicate to the wearer when he has operated the switch, the switch is constructed so that it creates an easily heard "click" noise both when it is closed and when it is opened again."

The Examiner submits that the period of time needed for the "click" noise to be heard is the claimed a selected time delay. Thus, the Examiner submits that Lenz teaches maintaining the transmit mode (as the user depressing the switch) in response to the switch being closed after the "click" noise is heard by the user.

Air pressure caused by the user blowing

Applicant argues that White teaches speech recognition and does not teach or suggest a user blowing on the air pressure sensor. However, the Examiner respectfully disagrees.

More specifically, the Examiner submits that White explicitly teaches (see White. col. 3, lines 19-27) controlling a hands-free device by the user blowing into a microphone or a pressure sensor.

Thus, White teaches the claimed "air pressure caused by the user blowing.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEN W. HUANG whose telephone number is (571)272-7852. The examiner can normally be reached on 10am - 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-4177. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/W. W. H./
Examiner, Art Unit 2618

/Matthew D. Anderson/
Supervisory Patent Examiner, Art Unit 2618